

This listing of the claims replaces any and all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS

1. (currently amended) A device for performing an experiment with a target moiety, comprising:

(a) a removable substrate having

(a1) a plurality of probe moieties each attached to a designated site on a surface thereof, and

(a2) containing machine-readable information relating to the probe and/or target moieties; and a source of the target moiety,

~~wherein the target moiety is a substance that induces a detectable response signal by the probe moieties and interaction between the target moiety and a probe moiety results in the detectable response signal from the site of the probe moiety interacting with the target moiety,~~

~~the information is represented by a data signal and is physically associated with the substrate, and~~

~~the response and data signals are in the same detectable or readable form~~

(b) a fluidic device for bringing the target moiety in contact with the plurality of probe moieties,

(c) an apparatus for measuring characteristics of the interaction between the plurality of probe moieties and the target moiety;

(d) a machine for

(d1) reading some or all of the machine-readable information found on the substrate,

(d2) commanding the device to apply a substance or condition that induces a response from the probe and target moieties, taking as an input some or all of the machine-readable information found on the substrate,

(d3) receiving the characteristics of the interaction as measured by the apparatus for measuring, and

(d4) taking as inputs some or all of the machine-readable information found on the substrate and the characteristics of the interaction, ascertaining some characteristic of the target moiety.

2. (previously presented) The device of claim 1, wherein the machine-readable information contains the identity of a customer.
3. (currently amended) The device of claim 1, wherein the machine-readable information is secured by technological means.
4. (previously presented) The device of claim 1, wherein the machine-readable information contains shipping and/or billing information.
5. (previously presented) The device of claim 1, wherein the machine-readable information contains the identity of at least one of the probe moieties.
6. (previously presented) The device of claim 1, wherein the machine-readable information comprises information relating to a process by which the plurality of probe moieties is attached to the substrate surface.
7. (previously presented) The device of claim 1, wherein the machine-readable information comprises information relating to experimental conditions associated with the use of the plurality of probe moieties.
8. (previously presented) The device of claim 1, wherein the machine-readable information comprises information relating to the results of an experiment associated with the use of the plurality of probe moieties.
9. (original) The device of claim 1, wherein the machine-readable information is digital.

Claim 10 (canceled).

11. (previously presented) The device of claim 103, wherein the machine-readable information is represented by no less than 1 megabyte of data.

12. (previously presented) The device of claim 103, wherein the machine-readable information is represented by about 1 to about 650 megabytes of data.
13. (currently amended) The device of claim 1, wherein the machine-readable information is response and data signals are in an optically detectable or readable form.
14. (currently amended) The device of claim 13, wherein the machine-readable information is response and data signals are detectable or readable by a fluorescence reader.
15. (currently amended) The device of claim 13, wherein the machine-readable information is response and data signals are detectable or readable by a phosphoimager.
16. (currently amended) The device of claim 13, wherein the machine-readable information is response and data signals are detectable or readable by a compact disk reader.
17. (currently amended) The device of claim 13, wherein the machine-readable information is response and data signals are detectable or readable by a digital versatile disk reader.
18. (currently amended) The device of claim 1, further comprising additional information on the substrate in a format that is readable by a bar code reader.
19. (original) The device of claim 18, wherein the bar code reader is a one-dimensional bar code reader.
20. (original) The device of claim 18, wherein the bar code reader is a two-dimensional bar code reader.
21. (currently amended) The device of claim 1, wherein the machine-readable information is response and data signals are in a magnetically detectable or readable form.

22. (currently amended) The device of claim 1, wherein the machine-readable information is response and data signals are in an electronically detectable or readable form.

23. (original) The device of claim 1, further comprising human readable information.

24. (previously presented) The device of claim 1, wherein the attached probe moieties are protected by a covering layer that covers the attached probe moieties.

25. (previously presented) The device of claim 24, wherein the protective layer encases the attached probe moieties.

26. (previously presented) The device of claim 24, wherein the protective covering layer is removable.

27. (previously presented) The device of claim 24, wherein the protective layer allows only selected matter or radiation to be transmitted therethrough.

28. (previously presented) The device of claim 27, wherein the selected matter or radiation is electromagnetic radiation.

29. (previously presented) The device of claim 28, wherein the electromagnetic radiation has a wavelength that causes fluorescence near an attached probe moiety.

30. (previously presented) The device of claim 1, wherein the plurality of attached probe moieties comprises an array of biomolecules.

31. (original) The device of claim 30, wherein the biomolecules are nucleotidic or peptidic.

32. (original) The device of claim 30, wherein the biomolecules are oligomeric or polymeric.

33. (previously presented) The device of claim 30, wherein the array comprises at least 5,000 probe moieties per square centimeter of substrate surface.

34. (previously presented) The device of claim 33, wherein the array comprises at least 50,000 probe moieties per square centimeter of substrate surface.

35. (previously presented) The device of claim 34, wherein the array comprises at least 200,000 probe moieties per square centimeter of substrate surface.

36. (previously presented) The device of claim 35, wherein the array comprises at least 1,000,000 probe moieties per square centimeters of substrate surface.

37 (original) The device of claim 1, wherein the substrate comprises a disk.

38. (original) The device of claim 1, wherein the substrate comprises a tape.

39. (original) The device of claim 1, wherein the substrate comprises a well plate.

40. (original) The device of claim 1, wherein the substrate comprises a slide.

41. (previously presented) The device of claim 1, wherein the substrate comprises a plurality of surfaces arranged in a three-dimensional structure to which the probe moieties are attached.

42. (previously presented) The device of claim 1, wherein the substrate further comprises a magnetic medium.

43. (previously presented) The device of claim 1, wherein the substrate further comprises an optical medium.

44. (previously presented) The device of claim 1, wherein the surface having the probe moieties attached thereto opposes a surface on which the information is located.

Claims 45-90 (canceled).

91. (currently amended) The device of claim 1, wherein the machine-readable information is contained in a discrete region of the substrate from the substrate surface having the plurality of probe moieties attached thereto.

Claim 92 (canceled).

93. (previously presented) The device of claim 91, wherein the discrete region is noncoplanar with respect to the substrate surface.

94. (previously presented) The device of claim 91, wherein the discrete region of the substrate is movable with respect to the substrate surface.

95. (previously presented) The device of claim 94, wherein the substrate comprises a cartridge.

96. (previously presented) The device of claim 1, wherein the machine-readable information and the attached probe moieties exhibit positional correspondence.

97. (previously presented) The device of claim 1, wherein the substrate has a radial mass distribution that is symmetric about an axis, perpendicular to the plane of the substrate surface.

98. (previously presented) The device of claim 97, wherein the substrate is in the form of a disk.

99. (previously presented) The device of claim 1, wherein the machine-readable information is contained in a computer microchip.

100. (previously presented) The device of claim 1, wherein the machine-readable information is stored in a medium capable of emitting radiation.

101. (previously presented) The device of claim 100, wherein the radiation is electromagnetic radiation.

102. (previously presented) The device of claim 100, wherein the medium is a fluorescent medium.

103. (previously presented) The device of claim 1, wherein the information is represented by no less than 1 kilobyte of data.

Claims 104-106 (canceled).

107. (currently amended) The device of claim 1, wherein the machine-readable information is response and data signals are in a radioactively detectable or readable form.

Claim 108 (canceled).

109. (withdrawn) A method for performing an experiment with a target moiety, comprising:

(a) using a reading and detecting means to read the machine-readable information from the device of claim 1;

(b) applying the target moiety from the source to the probe moieties based upon the information read by the reading and detecting means; and

(c) using the reading and detecting means to detect for a response signal resulting from an interaction between the target moiety and a probe moiety.

110. (previously presented) The device of claim 30, wherein the array comprises about 5,000 probe moieties per square centimeter of substrate surface.